UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

Rafael Moure-Eraso, PhD
Chairperson
U.S. Chemical Safety and Hazard Investigation Board
2175 K Street, NW Suite 650
Washington, D.C. 20037-1809

Dear Dr. Moure-Eraso:

Thank you for your April 8, 2014, letter to the U. S. Environmental Protection Agency (EPA) Administrator Gina McCarthy regarding the recommendation issued to the EPA by the Chemical Safety and Hazard Investigation Board (CSB) calling for revisions to the Accidental Release Prevention Requirements, 40 CFR 68, to explicitly cover catastrophic reactive hazards (Recommendation No. 2001-1-H-R3). Your letter notified the EPA of the Board's vote on March 11, 2014, to change the status of this recommendation to "Open-Unacceptable Response."

Under Executive Order (EO) 13650 – Improving Chemical Facility Safety and Security, the EPA is actively working on several projects related to chemical facility safety and security. The EPA and other federal agencies are working together to improve operational coordination with state and local partners, improve federal agency coordination and information sharing, modernize policies, regulations, and standards, and identify best practices. In January 2014, the Interagency Working Group tasked with implementing the EO released a Solicitation of Public Input with various options for improving chemical facility safety and security, including coverage of reactive substances and reactivity hazards.

In December 2013, the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) published a request for information (RFI) seeking public comments on potential revisions to its Process Safety Management (PSM) standard and related standards, as well as other policy options to prevent major chemical incidents. Among the issues raised in the OSHA RFI, is whether to expand the PSM standard's coverage and requirements for reactivity hazards. OSHA is planning to use the information received in response to their RFI to determine what actions, if any, it may take.

Since the EPA's Risk Management Program (RMP) regulations build on OSHA's PSM standard, the EPA is working on a similar RFI. This RFI will also request stakeholder input on whether to cover reactive substances and reactivity hazards under the RMP regulations, and if so, suggest the appropriate criteria to classify and identify reactive hazards and establish threshold quantities as required under the Clean Air Act (CAA) Amendments of 1990. The information that is received about reactive substances and hazards under the EO Solicitation of Input and OSHA's and the EPA's RFIs will be used to determine what actions, if any, we may take.

Missing from the list of the many actions the EPA has taken since the CSB Reactive Chemicals Hazard Investigation was issued in 2002 (in the supporting documentation to the Board's vote to change the status of the recommendation) is information from our November 15, 2002, and April 29, 2003, responses to the CSB reactives recommendations regarding our ongoing work with the National Oceanic

and Atmospheric Administration (NOAA) on computer-based tools to assist facilities with managing their reactive chemicals and process hazards. This partnership has produced the Chemical Reactivity Worksheet, a free computer program that can be used by facilities to better understand the reactive nature of chemicals and mixtures. NOAA and the EPA continue to refine this tool which is proving to be quite popular. In fact, following a recent upgrade to the program, there was a significant spike in website and download activity. In the first quarter of 2014, nearly 25,000 downloads of all forms of the program (Windows, Mac, iPad) have occurred.

We have some concerns that the CSB has mischaracterized the scope of the General Duty Clause (GDC) under CAA section 112(r)(1). In dismissing its utility while we work on addressing the hazards associated with reactivity, you note that "many substances are unlikely to be considered 'extremely hazardous' since they do not present an inherent catastrophic reactive hazard until combined with other chemicals or under process-specific conditions." This interpretation of the GDC and what chemicals can be deemed "extremely hazardous" is at odds with the most persuasive legislative history on point. In the Report of the Senate Environment and Public Works Committee, Report 101-228, at 211, it provides a sweeping description of the types of chemicals that may be extremely hazardous that focuses on the potential impact of an accidental release regardless of the particular form of the substance. The Senate Committee said there should be a presumption that a substance is extremely hazardous if it causes significant adverse impacts by acute toxic effect or "by *blast, fire, corrosion or other reaction*," and that "extremely hazardous substances" would "include other agents which may or may not be listed" that "as the result of short-term exposures associated with [accidental] releases to the air cause death, injury or property damage due to their toxicity, *reactivity*, flammability, volatility, or corrosivity" *Id.* (emphasis added).

We believe the GDC is useful and have used it not only after incidents but also to prevent them. For example, the EPA's Region 1 has obtained settlements for violations of the GDC arising from incompatible storage of chemicals that present a reaction hazard. The EPA's Region 3 suspended operations at a facility handling water reactive chemicals until significant hazards were corrected. More information on these and other preventive actions can be discussed with you. We do not contend that the GDC is as easy to apply as a regulation, but your view that it is "difficult to issue and uphold [GDC] citations" denies its utility based on an erroneous characterization of its scope and our successful history in using it.

Finally, CSB lists several industrial accidents involving reactive chemicals, including the West Fertilizer facility incident, the investigation of which is not yet complete. The EPA looks forward to receiving the CSB analyses of root causes and contributing factors that identify the reactive chemical mechanisms that occurred in this incident and the technical support for these findings. These results, combined with technical information from other incidents, can inform the work by OSHA and the EPA to properly frame regulatory requirements, if any, that are needed to prevent future accidents.

Thank you again for your letter. Please contact Nitin Natarajan or me at (202)566-0200, if you have any further questions or concerns regarding this topic.

Sincerely,

Mathy Stanislaus
Assistant Administrator